



STIC Search Report

EIC 3700

STIC Database Tracking Number: 102107

TO: Michele Kidwell
Location: CP2 3B16
Art Unit: 3761

Case Serial Number: 10/028027

From: Jeanne Horrigan
Location: EIC 3700
CP2-2C08
Phone: 305-5934

jeanne.horrigan@uspto.gov

Search Notes

Attached are the search results for the tangent delta value, including author and prior art searches in foreign and international patent databases, and in textile and materials non-patent literature databases. I also did a brief search of the Internet using the Scirus search engine.

Also attached is a search feedback form. Completion of the form is voluntary. Your completing this form would help us improve our search services.

I hope the attached information is useful. Please feel free to contact me (phone 305-5934 or email jeanne.horrigan@uspto.gov) if you have any questions or need additional searching on this application.

Nov 129 (Friday)

Access DB# 102107

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Nichelle Kidwell Examiner #: 77693 Date: 8/22/03
Art Unit: 3761 Phone Number 30 52941 Serial Number: 10/028,027
Mail Box and Bldg/Room Location: CP2/3B16 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: 12/22/01

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>James Harrison</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

PTO-1590 (8-01)

BEST AVAILABLE COPY

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200355
File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	5	AU='TATE M L'
S2	43	AU='KRZYSIK D G'
S3	3	AU='HRISTOV H A' OR AU='HRISTOV H'
S4	21	AU='LIN S Q' OR AU='LIN S Q S'
S5	0	S1 AND S2 AND S3 AND S4
S6	67	S1:S4
S7	9	TARGET() DELTA
S8	0	S6 AND S7
S9	30	ABSORB? AND S6
S10	148123	PERMEAB?
S11	13	S9 AND S10

11/26, TI/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
015029876
WPI Acc No: 2003-090393/200308

Absorbent article such as diaper, comprises absorbent body located between outer cover and liquid permeable body side liner coated with composition having preset amount of emollient and stability enhancer

11/26, TI/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
014985460
WPI Acc No: 2003-045975/200304

Absorbent article used for protecting skin barrier comprises outer cover, liquid permeable bodyside liner, absorbent body, and composition containing anionic polymers

11/26, TI/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
014956479
WPI Acc No: 2003-016993/200301

Absorbent article for protecting skin barrier comprises an outer cover, a liquid permeable bodyside liner, an absorbent body, and a composition containing an extracted botanical active

11/26, TI/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
014861973
WPI Acc No: 2002-682679/200273

Absorbent article such as disposable diaper, comprises liquid-permeable body-side liner containing composition having preset amount of emollient, viscosity enhancer and decoupling polymer, on body-facing surface

11/26, TI/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
014846078

WPI Acc No: 2002-666784/200271

Absorbent article, useful for diapers, wound dressings, wet wipes or cosmetic cleansing pads, comprises an absorbent body containing a composition between an outer cover and a liquid permeable bodyside liner

11/26, TI/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014787604

WPI Acc No: 2002-608310/200265

Absorbent article e.g. diaper, comprises outer cover, liquid permeable bodyside liner, absorbent material and composition including preset amount of emollient, viscosity enhancer and extracted botanical active agent

11/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014754649

WPI Acc No: 2002-575353/200261

Absorbent articles such as diapers, comprises composition comprising preset amount of emollient, stability enhancer and without immobilizing agent, on at least portion of bodyfacing surface of bodyside liner

11/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014678997

WPI Acc No: 2002-500054/200253

Toilet training pad, used in conjunction with undergarment to assist humans, particularly children, in toilet training, comprises pliable substrate and effervescent agent

11/26, TI/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014584761

WPI Acc No: 2002-405465/200243

Article in form of pad, comprises pliable substrate disposed with astringent agent or source such that when pad is wetted with urine, astringent agent contacts skin

11/26, TI/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013547455

WPI Acc No: 2001-031661/200104

Absorbent article such as diaper comprises hydrophilic lotion formulation comprising specific amount of hydrophilic solvent, high molecular weight polyethylene glycol and fatty alcohol on bodyside liner

11/26, TI/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013540424

WPI Acc No: 2001-024630/200103

Absorbent articles such as diapers comprises lotion formulation having

emollient, wax and viscosity enhancer which is polyolefin resin or polymer, polyethylene and/or lipophilic/oil thickeners on bodyside liner

11/26, TI/13 (Item 13 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013074612

WPI Acc No: 2000-246484/200021

Disposable absorbent articles comprise absorbent, front and rear waist sections interconnected by intermediate section with lotion formulation on portion(s) of body-facing surfaces

11/7/12 (Item 12 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013270164

WPI Acc No: 2000-442070/200038

Three-dimensional material for use in absorbent article and having specific property contains fiber-like element that can extend from one surface to other

Patent Assignee: KIMBERLY-CLARK WORLDWIDE INC (KIMB)

Inventor: BONTRAGER M L; BRAVERMAN J; CHANG K E; DALEY M A; ENGLISH K L; GARAVAGLIA A E; **HRISTOV H A**; KOLLIN N D; MACE T L; MATELA D M; RYMER S; SMITH R; SMITH R C; SPERL M D; VARONA E G

Number of Countries: 089 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200033780	A1	20000615	WO 99US29132	A	19991208	200038 B
AU 200019367	A	20000626	AU 200019367	A	19991208	200045
MX 2001005849	A1	20010901	MX 20015849	A	20010608	200239

Priority Applications (No Type Date): US 98209044 A 19981209

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200033780	A1	E	72	A61F-013/15	
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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200019367	A	A61F-013/15	Based on patent WO 200033780
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MX 2001005849	A1	A61F-013/15	
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Abstract (Basic): WO 200033780 A1

NOVELTY - A three-dimensional material for an **absorbent** article is defined by fiber-like elements which can extend from one surface to the other. It has a Hermann's orientation factor of less than 0.87, a Surface Area (SA)/Void volume (VV) of less than 186 cm²/cm³, and a caliper of less than 0.15 inches. The material has an upper and lower surface, each having a surface energy.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a topsheet for personal care products comprising the material of the invention. The fiber-like elements contained in the material are wettable.

USE - For use in **absorbent** article, preferably as liner for personal care products like diapers, training pants, swim wear, **absorbent** underpants, adult incontinence products, bandages, and

ASRC Searcher: Jeanne Horrig
Serial 10/028027
August 28, 2003

4

feminine hygiene products.

ADVANTAGE - The invention delivers the desired functional attributes of cleanliness, dryness, and **absorbency** in one material, while maintaining the softness and comfort normally associated with fibrous nonwoven webs.

pp; 72 DwgNo 0/25

Derwent Class: A96; D22; F07; P32

International Patent Class (Main): A61F-013/15

File 348:EUROPEAN PATENTS 1978-2003/Aug W03
File 349:PCT FULLTEXT 1979-2002/UB=20030821,UT=20030814
Set Items Description
S1 3 AU='TATE MARTHA LILLIAN'
S2 66 AU='KRZYSIK DUANE G' OR AU='KRZYSIK DUANE GERARD'
S3 1 AU='KRZYSKI DUANE G'
S4 3 AU='HRISTOV HRISTO ANGELOV'
S5 23 AU='LIN SAMUEL Q S' OR AU='LIN SAMUEL QCHENG' OR AU='LIN S-
AMUEL QCHENG UNILEVER RESEARCH U S INC'
S6 1 S1 AND S2:S3 AND S4 AND S5
S7 85 TARGET()DELTA
S8 1291 DELTA()VALUE
S9 0 (S1:S5 AND S7:S8) NOT S6

6/3,AB/1 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
01027582

**ABSORBENT ARTICLES WITH COMPOSITIONS HAVING EVEN DISTRIBUTION
ARTICLES ABSORBANTS COMPRENANT DES COMPOSITIONS DISTRIBUEES DE MANIERE
UNIFORME**

Patent Applicant/Assignee:

KIMBERLY-CLARK WORLDWIDE INC, 401 N. Lake Street, Neenah, WI 54956, US,
US (Residence), US (Nationality)

Inventor(s):

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HRISTOV Hristo Angelov , 9045 Club River Drive, Roswell, GA 30076, US,
LIN Samuel Qcheng , 76 Brown Circle, Paramus, NJ 07652, US

Legal Representative:

DUDKOWSKI Alyssa A (et al) (agent), Kimberly-Clark Worldwide, INC., 401
N. Lake St., Neenah, WI 54956, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200357263 A1 20030717 (WO 0357263)
Application: WO 2002US37101 20021118 (PCT/WO US0237101)
Priority Application: US 200128027 20011222

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 20305

English Abstract

The present invention relates to absorbent articles including compositions having improved rheological properties. The compositions of the invention exhibit improved spreading characteristics and would provide a more even distribution of skin care compounds on the skin of the wearer of the absorbent articles. The improved spreading characteristics are quantified by a Tangent Delta measurement. The present invention also relates to absorbent articles including compositions that contain silicone elastomers.

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200355

File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	14	TANGENT()DELTA()VALU?
S2	5	AU='TATE M L'
S3	43	AU='KRZYSIK D G' OR AU='KRZYSKI D G'
S4	1	AU='HRISTOV H A'
S5	21	AU='LIN S Q' OR AU='LIN S Q S'
S6	0	S1 AND S2:S5

File 348:EUROPEAN PATENTS 1978-2003/Aug W03

File 349:PCT FULLTEXT 1979-2002/UB=20030821,UT=20030814

Set	Items	Description
S1	200	TANGENT()DELTA
S2	3	AU='TATE MARTHA LILLIAN'
S3	67	AU='KRZYSIK DUANE G' OR AU='KRZYSIK DUANE GERARD' OR AU='K- RZYSKI DUANE G'
S4	3	AU='HRISTOV HRISTO ANGELOV'
S5	448	SE4 OR AU='LIN SAMUEL Q S' OR AU='LIN SAMUEL QCHENG' OR AU- ='LIN SAMUEL QCHENG UNILEVER RESEARCH U S INC'
S6	6	AU='LIN SAMUEL'
S7	1	S1 AND S2:S6 [a duplicate]

File 8: Ei Compendex(R) 1970-2003/Aug W3
File 34: SciSearch(R) Cited Ref Sci 1990-2003/Aug W4
File 35: Dissertation Abs Online 1861-2003/Aug
File 65: Inside Conferences 1993-2003/Aug W4
File 67: World Textiles 1968-2003/Aug
File 94: JICST-EPlus 1985-2003/Aug W4
File 95: TEME-Technology & Management 1989-2003/Aug W2
File 96: FLUIDEX 1972-2003/Aug
File 99: Wilson Appl. Sci & Tech Abs 1983-2003/Jul
File 119: Textile Technol. Dig. 1978-2003/Jun
File 144: Pascal 1973-2003/Aug W2
File 240: PAPERCHEM 1967-2003/Aug W4
File 248: PIRA 1975-2003/Aug W4
File 315: ChemEng & Biotec Abs 1970-2003/Jul
File 323: RAPRA Rubber & Plastics 1972-2003/Sep
File 434: SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 239: Mathsci 1940-2003/Oct

Set	Items	Description
S1	10	TANGENT() DELTA() VALU?
S2	324119	PERMEAB?
S3	3001395	LIQUID? ? OR FLUID? ?
S4	3577260	TEMPERATURE (January 1993)
S5	5634797	CELSIUS OR C
S6	1080136	FAHRENHEIT OR F
S7	0	S1 AND S2
S8	7	S1 AND S4
S9	1	S1 AND S5
S10	0	S1 AND S6
S11	8	S8:S9
S12	5	RD (unique items)
S13	2	S1 NOT S11

12/6/1 (Item 1 from file: 8)
05833500

Title: Improved tread compound wet/winter traction using brominated isobutylene-co-para-methylstyrene
Publication Year: 2001

12/6/2 (Item 1 from file: 94)
02783815 JICST ACCESSION NUMBER: 96A0697212 FILE SEGMENT: JICST-E
Anticorrosion Material for the Internal Surface of Steel Piping., 1996

12/6/3 (Item 1 from file: 323)
00871950
TITLE: ROAD WEAR TESTING OF BIMS TREADS

12/7,K/5 (Item 3 from file: 323)
DIALOG(R) File 323: RAPRA Rubber & Plastics
(c) 2003 RAPRA Technology Ltd. All rts. reserv.
00538962
TITLE: ULTRA-HIGH REINFORCING PRECIPITATED SILICA FOR TYRE AND RUBBER APPLICATIONS
AUTHOR(S): Evans L R; Waddell W H
CORPORATE SOURCE: PPG Industries Inc.
CONFERENCE PROCEEDINGS: Tyretech '94. Conference proceedings
CORPORATE EDITOR: Rapra Technology Ltd.; European Rubber Journal

SOURCE: Munich, 24th-25th Oct.1994, paper 11. 6T1
JOURNAL ANNOUNCEMENT: 199504 RAPRA UPDATE: 199505
DOCUMENT TYPE: Conference Papers
LANGUAGE: English
SUBFILE: (R) RAPRA

ABSTRACT: Physical properties of a silica-filled model tyre compound containing a high surface area precipitated silica are consistent with predictions based only on silica surface area. Further evaluation in patented tyre tread formulations again show that the performance of a high surface area silica is consistent with predictions based on surface area only. However, the use of an experimental high surface area and fine particle precipitated silica afforded higher than predicted dynamic properties (G' and G'') with a somewhat lower **tangent delta value**. Using **temperature** sweep data of Rheometrics testing and analysis based upon published equations predictive of tyre performance, the experimental silica was determined to be uniquely reinforcing. The predicted tyre cornering coefficient is ca. 15% higher than using carbon black only or using a conventional silica. Based on a series of designed experiments to optimise the properties of tread compounds, the use of the experimental silica may not require the use of a silane coupling agent. 29 refs.

13/6/1 (Item 1 from file: 34)

11855409 Genuine Article#: 702EK Number of References: 39

Title: Evaluation of isobutylene-based elastomers in a model winter tire tread (ABSTRACT AVAILABLE)

Publication date: 20030500

13/6/2 (Item 1 from file: 323)

00871387

TITLE: CORRELATIONS BETWEEN TACK AND VISCOELASTIC PROPERTIES OF MODEL TIRE BELT SKIMS

File 9:Business & Industry(R) Jul/1994-2003/Aug 27
File 16:Gale Group PROMT(R) 1990-2003/Aug 27
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2003/Aug 27
File 20:Dialog Global Reporter 1997-2003/Aug 28
File 481:DELPHES Eur Bus 95-2003/Aug W4
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Aug 27
File 624:McGraw-Hill Publications 1985-2003/Aug 27
File 635:Business Dateline(R) 1985-2003/Aug 28
File 636:Gale Group Newsletter DB(TM) 1987-2003/Aug 27

Set	Items	Description
S1	17	TANGENT()DELTA()VALU?
S2	27088	PERMEAB?
S3	925103	LIQUID? ? OR FLUID? ?
S4	472775	TEMPERATURE
S5	5391901	CELSIUS OR C
S6	1506622	FAHRENHEIT OR F
S7	0	S1(S)S2
S8	8	S1(S)S4
S9	14	S1(S)S5
S10	2	S1(S)S6
S11	14	S8:S10
S12	11	RD (unique items)
S13	4	S12/2002:2003
S14	7	S12 NOT S13
S15	7	Sort S14/ALL/PD,D
S16	3	S1 NOT S11
S17	2	RD (unique items)

15/8/1 (Item 1 from file: 16)

DIALOG(R)File 16:(c) 2003 The Gale Group. All rts. reserv.
09207199 Supplier Number: 78792379 (USE FORMAT 7 FOR FULLTEXT)
Improved traction with BIMS.
Sept, 2000

15/8/2 (Item 2 from file: 16)

DIALOG(R)File 16:(c) 2003 The Gale Group. All rts. reserv.
06781141 Supplier Number: 57164514 (USE FORMAT 7 FOR FULLTEXT)
USING BIMS TO IMPROVE TIRE TREAD PROPERTIES.
Nov 1, 1999

15/8/3 (Item 3 from file: 16)

DIALOG(R)File 16:(c) 2003 The Gale Group. All rts. reserv.
07044290 Supplier Number: 57748347 (USE FORMAT 7 FOR FULLTEXT)
Effects of BIMS structure on the properties of a tire black sidewall compound.
Oct, 1999

15/8/5 (Item 5 from file: 148)

DIALOG(R)File 148:(c)2003 The Gale Group. All rts. reserv.
10309876 SUPPLIER NUMBER: 20852836 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Effect of silica on the viscoelastic properties of a model tread compound.
June, 1998

15/3,AB,K/4 (Item 4 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

06195671 Supplier Number: 54117641

A review of isobutylene-based elastomers used in automotive applications.

Rogers, John E.; Waddell, Walter H.

Rubber World, v219, n5, p24(1)

Feb, 1999

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 7791

... brominated isobutylene-co-para-methylstyrene in carbon black- and silica-filled SBR/BR compounds. Increased **tangent delta values** at low temperatures (-30 to +10 [degrees] C) and decreased **tangent delta values** at higher temperatures ([is greater than] 30 [degrees] C) were obtained compared to a carbon black-filled NR/BR/SBR tire tread composition (figure...

...ref. 34) reported that use of bromobutyl rubber or brominated isobutyleneco-para-methylstyrene increased the **tangent delta values** at 0 [degrees] C of carbon black-filled emulsion-(SBR 1502) and solution-SBR (sSBR 1216)/BR compounds.

[Figure...

...with and without styrene-butadiene rubber in silane-coupled silica-filled compounds, and found increased **tangent delta values** at 0 [degrees] C when using BIMS.

Rogers (ref. 66) reported that use of brominated isobutylene-co-para-methylstyrene and silane-coupled silica-filled in butadiene rubber/styrene-butadiene rubber compounds afforded increased **tangent delta values** at 0 [degrees] C and decreased **tangent delta values** at 60 [degrees] C in laboratory tests, with only slight reductions in treadwear based on tire tests using sectional...

15/3,AB,K/6 (Item 6 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

03939200 Supplier Number: 45697785

Hi-Sil EZ: easy dispersing precipitated silica

Rubber & Plastics News, p12

July 31, 1995

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 3267

... see Table V.

Dynamic properties

Dynamic mechanical properties are shown in Table VI. Using the **tangent delta values** at -30(degrees) C , 0(degrees) C and 60(degrees) C , respectively, for predictions of tire ice traction, wet traction and rolling resistance¹⁵, use of precipitated...

...resistance is higher for the silica-containing compounds, however, G" hysteresis values at 60(degrees) C are significantly lower for the silica-filled compounds than for the N-339 carbon black-filled control compound. Fig. 9 is a plot of tangent delta curves **temperature** for five compounds: (i) Compound B prepared using 71.5 phr of N-399 carbon...

...coupling agent is used. When compared to a compound containing N-339 carbon black, higher **tangent delta values** at 0(degrees) C are obtained for the silica -containing compounds, which predicts improved wet traction, whether or not...

15/3,AB,K/7 (Item 7 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

04817910 SUPPLIER NUMBER: 09388047 (USE FORMAT 7 OR 9 FOR FULL TEXT)

New processing agent in tire compounds.

Hong, S.W.

Rubber World, v202, n5, p33(6)

August, 1990

ISSN: 0035-9572 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 3261 LINE COUNT: 00333

... 0 57.8

Tangent delta and composite dynamic modulus were measured with a viscoelastic tester. **Tangent delta value** was decreased as the PA 1109 was increased. However, with the addition of more than...

...tangent delta began to increase (figure 2). The dynamic modulus for compounds A, B and C, which contained 0, 1 and 2 phr of PA 1109, were similar to each other, tested at 50 [degrees] C, 75 [degrees] C and 100 [degrees] C, respectively. However, with the addition of more than 3 phr of PA 1109, the dynamic...delta and composite dynamic modulus were computed from loss and storage modulus. In compound B, **tangent delta value** was decreased significantly and a slight decrease in tangent delta for compound C was observed, compared with that of compound A which did not contain PA 1109, while composite dynamic modulus for both compound C and compound B was significantly increased. Good dispersion of polymers and blacks with PA 1109...

...for compound C was much lower than that of compound A and compound B. Also, **tangent delta value** in compound B was lower than that of compound A because of the tight cure with 4,4' dithiodimorpholine. The dynamic modulus for compound C and compound B was much higher than that for compound A, as expected...

17/3,AB,K/1 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

06588536 Supplier Number: 55553528

New insights into the mixing process.

Stone, C.R.; Menting K.-H.; Hensel, M.

Rubber World, v220, n4, p31

July, 1999

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 5161

... probably due to improved filler dispersion. The compounds containing the zinc soap also show lower **tangent [Delta] values** than the compound containing stearic acid, but here the difference is not so large as...

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200355
File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)
File 371:French Patents 1961-2002/BOFI 200209

Set	Items	Description
S1	14	TANGENT()DELTA()VALU?
S2	148123	PERMEAB?
S3	1805450	LIQUID? ? OR FLUID? ?
S4	1183599	TEMPERATURE
S5	3772191	CELSIUS OR C
S6	380428	FAHRENHEIT OR F
S7	11537	IC=A61F-013/15
S8	7	S1 AND S4
S9	8	S1 AND S5
S10	1	S1 AND S6
S11	11	S8:S10
S12	0	S7 AND S11
S13	0	S1 AND S7
S14	3	S1 NOT S11

11/26,TI/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
015281578
WPI Acc No: 2003-342510/200332

Rubber composition for tire tread applications in vehicles, comprises rubber component, silica filler, coupling agent and polyalkylene oxide having specific weight average molecular weight

11/26,TI/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
014912164
WPI Acc No: 2002-732870/200279

Elastomeric composition for tire treads and tire sidewalls, comprises preset amount of primary and secondary rubber components, and copolymer of isooolefin and para-alkylstyrene

11/26,TI/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
013783223
WPI Acc No: 2001-267434/200128

Pneumatic tire for vehicles, comprises sulfur-cured rubber composition containing rubber and resin(s) of coumarone-indene, alkylated hydrocarbon, aromatic petroleum hydrocarbon and/or dicyclopentadiene-diene

11/26,TI/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
011457057
WPI Acc No: 1997-434964/199740

Pressure sensitive adhesive for making labels - comprises elastomer, tackifier, and polystyrene polyisoprene diblock copolymer

11/26,TI/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.
011366797

WPI Acc No: 1997-344704/199732

Rubber composition for tyre tread with improved gripping performance - comprises natural/synthetic rubber, nitrogen containing compound and protonic acid or its derivative

11/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.
010657525

WPI Acc No: 1996-154478/199616

Stacked ceramic capacitor screening method - involves calculating dielectric-loss-tangent delta value by heating capacitor at suitable temperature

11/7, K/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.
015515139 **Image available**

WPI Acc No: 2003-577286/200354

Halogenated terpolymer useful in, e.g. tire inner liner, inner tube and other air barrier, comprises isoolefin derived units, multiolefin derived units, and p-alkylstyrene derived units

Patent Assignee: EXXONMOBIL CHEM PATENTS INC (ESSO)

Inventor: CHUNG D Y; WADDELL W H

Number of Countries: 100 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200350149	A1	20030619	WO 2002US39188	A	20021209	200354 B

Priority Applications (No Type Date): US 2002389598 P 20020618; US

2001339966 P 20011210

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200350149	A1	E	59	C08F-008/20	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200350149 A1

NOVELTY - A halogenated terpolymer comprises 4-8C isoolefin derived units, 4-14C multiolefin derived units, and p-alkylstyrene derived units.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for production of an elastomeric terpolymer comprising combining in a polar diluent, 4-8C isoolefin monomers, 4-14C multiolefin monomers, and p-alkylstyrene monomers in the presence of a Lewis acid and an initiator to produce the terpolymer.

USE - The invention is useful in tires, particularly in automotive components such as treads, belts, tire inner liner, inner tube and other air barrier (claimed). It may also be used for belts and hoses, vibrational damping devices, pharmaceutical stoppers and plungers, shoe soles and other shoe components, and other devices where air impermeability and flexibility are important.

ADVANTAGE - The invention improves carcass adhesion and flexibility

while maintaining air impermeability. It is useful in curable blends due to improved traction and abrasion performance.

DESCRIPTION OF DRAWING(S) - The figure is a plot of tangent delta (G''/G') values as a function of **temperature**.

pp; 59 DwgNo 1/1

Derwent Class: A17; E19

International Patent Class (Main): C08F-008/20

International Patent Class (Additional): C08F-008/22

Technology Focus:

... halogenated terpolymer has a DIN (sic) Abrasion Index of greater than 45 units, and a **tangent delta value** of greater than 0.60 at -30degreesC, preferably greater than 0.20 at 0degreesC. The...

...Preferred Component: The initiator is of formula $R2-C(R1)(R3)-X$ (I...

...2-8C alkenyl, aryls and substituted aryls; 3-10C cycloalkyls; or group of formula $X-C(R5)(R6)-R4$...

11/7,K/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013653729

WPI Acc No: 2001-137941/200114

Amorphous, non-chlorinated, polymer film useful as barrier to odors and organic compounds, has barrier functionality determined by 3-methyl indole or diethyl-disulfide breakthrough time, or hydrogen sulfide permeation rate

Patent Assignee: DOW CHEM CO (DOWC); DOW GLOBAL TECHNOLOGIES INC (DOWC)

Inventor: BONEKAMP J E; REGNIER F J F; TUNG H C; WOODS R A; REGNIER F J

Number of Countries: 091 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200100716	A2	20010104	WO 2000US17945	A	20000629	200114 B
AU 200057793	A	20010131	AU 200057793	A	20000629	200124
BR 200012459	A	20020326	BR 200012459	A	20000629	200229
			WO 2000US17945	A	20000629	
EP 1196482	A2	20020417	EP 2000943303	A	20000629	200233
			WO 2000US17945	A	20000629	
CZ 200104670	A3	20020717	WO 2000US17945	A	20000629	200260
			CZ 20014670	A	20000629	
KR 2002022735	A	20020327	KR 2001716886	A	20011228	200264
US 6455161	B1	20020924	US 99141744	P	19990630	200266
			US 2000605496	A	20000628	
CN 1365373	A	20020821	CN 2000809824	A	20000629	200281
JP 2003503572	W	20030128	WO 2000US17945	A	20000629	200309
			JP 2001506723	A	20000629	

Priority Applications (No Type Date): US 99141744 P 19990630; US 2000605496 A 20000628

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200100716 A2 E 62 C08J-005/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200057793 A C08J-005/00 Based on patent WO 200100716

BR 200012459 A C08J-005/00 Based on patent WO 200100716

EP 1196482 A2 E C08J-005/18 Based on patent WO 200100716
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI
CZ 200104670 A3 C08J-005/00 Based on patent WO 200100716
KR 2002022735 A C08J-005/18
US 6455161 B1 B32B-027/08 Provisional application US 99141744
CN 1365373 A C08J-005/18
JP 2003503572 W 90 C08J-005/18 Based on patent WO 200100716
Abstract (Basic): WO 200100716 A2

NOVELTY - Amorphous, non-chlorinated, polymer film has a barrier functionality determined by 3-methyl indole breakthrough time of at least five hours, a diethyl-disulfide breakthrough time of at least 40 minutes or a hydrogen sulfide permeation rate of upto 60 cm³ of hydrogen sulfide permeation per square centimeter of film area per day.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a multilayer film structure with at least one layer of an amorphous, non-chlorinated polymeric barrier film having 30-150 mum total thickness, a diethyl disulfide breakthrough time of at least 45 minutes, a noise level of upto 50 decibels at one or more octave 1-16 kHz frequency bands, a film-to-film heat seal strength of at least 10 Newtons per 25 millimeters, at least one skin layer and optionally at least one intermediate layer between the barrier layer and skin layer, and

(2) a method of reducing emission of noise in a multilayer film structure containing at least one barrier layer which comprises blending a first polymer resin, polymer resin composition or polymer blend composition and forming a layer of the multilayer film from the blended polymer resin.

The polymer resin composition has a **Tangent delta value** of at least 0.25 at -5 to -15degreesC or 0.32 at -12 to 5degreesC with a second polymer resin. The first polymer resin or polymer composition comprises at least 25 wt.% of the total layer composition.

USE - The amorphous, non-chlorinated polymer film is used as barriers to odors and organic compounds having a diameter of at least 0.4 nm useful for ostomy bags (colostomy, ileostomy), transdermal delivery systems (TDDS), cosmetic patches, incontinence bags, medical collection bags, parenteral solution bags, packaging of odorous food or products, and for protective clothing applications or soil fumigation. It is also used to form the multilayer film structure.

ADVANTAGE - The polymeric film is environmentally safe, hydrolytically stable, and exhibits low permeability to both small and larger molecular diameter odor-causing molecules. Depending upon the end-use, the film remains quiet. The polymeric film does not emit noise when crumpled.

pp; 62 DwgNo 0/0

Derwent Class: A18; A28; A83; A92; B07; D22; F07; P32; P73; Q34
International Patent Class (Main): B32B-027/08; C08J-005/00; C08J-005/18
International Patent Class (Additional): A61F-005/445; B32B-027/00;
B32B-027/30; B32B-027/32; B32B-027/34; B32B-027/36; B65D-065/40;
C08L-101-00

Technology Focus:

... block copolymer, styrene-isoprene-styrene block copolymer, amorphous thermoplastic polyester resins having a glass transition **temperature** (Tg) of above 50degreesC, amorphous polyamide or copolymer polyamide having a Tg of above 120degreesC...

Extension Abstract:

... A one seven-layer symmetrical coextruded film was prepared having A/B/ C /D/B/A structure. The layer composition and thickness was: A=93 wt.% ITP-1...
...per layer; B=100 wt.% PCP-2 (propylene copolymers), 26.5 micro-m per layer; C =100 wt.% EVA-3, 5.6 micro-m per layer; and D=70 wt.% PET...

11/7,K/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009931852

WPI Acc No: 1994-199563/199424

Cuttability of elastomeric pressure-sensitive adhesive compsns. - increased by addn. of surfactants contg. polyethylene-oxide and polypropylene-oxide blocks

Patent Assignee: AVERY DENNISON CORP (AVER)

Inventor: ERCILLO J C; SASAKI Y

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5322876	A	19940621	US 90493365	A	19900314	199424 B
			US 91802881	A	19911206	
			US 92986854	A	19921204	

Priority Applications (No Type Date): US 92986854 A 19921204; US 90493365 A 19900314; US 91802881 A 19911206

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5322876	A	17	C08K-005/06		CIP of application US 90493365 CIP of application US 91802881

Abstract (Basic): US 5322876 A

The adhesive comprises: (a) an elastomer; (b) a surfactant; and (c) a compatible wax.

Elastomer (a) consists of: (i) an elastomer from styrene-butadiene, styrene-butadiene-styrene block copolymers and their mixts.; (ii) a further elastomer from styrene-isoprene-styrene, styrene-isoprene, multiarmed styrene-isoprene block copolymers and their mixts.; and (iii) a tackifying system contg. a normally solid component (softening pt.=95 deg. C) obtd. by polymerisation of a stream of 5-6C dienes and monoolefins; the component being miscible with the polyisoprene blocks of (ii). (i) exhibits a first Tg and a value of tangent delta measured as a function of temp. (ii) exhibits a Tg greater than that of (i), and a second value of tangent delta measured as described. (ii) is immiscible in (i). (i) and (ii) are provided in proportions of 0.5:1-5:1 and a DMS plot of tangent delta as a function of temp. exhibits a polybutadiene-attributable first Tg peak determinable separate from and lower than polyisoprene-attributable second Tg peak.

Amt. of tackifying component in (iii) is 50-80 wt.% of (i), (ii) and (iii), and is sufficient to cause an increase in the second Tg and an increase in the temp. difference between the two Tg peaks and an increase in the **tangent delta value** attributed to the polyisoprene-attributable peak.

Surfactant (b) consists of hydrophilic polyethylene-oxide (PEO) blocks and hydrophobic polypropylene-oxide (PPO) blocks. The HLB of (b) is greater than 7. Amts. of (b) and (c) are 1-15 wt.%, and 0-15 wt.%.

USE/ADVANTAGE - The adhesive compsn. is used in label and tape mfr. Addn. of surfactants lowers the adhesive performance, i.e. peel

adhesion and tack to a lesser extent than when PEG and polysiloxanes are added. The surfactants are compatible with rubber-based adhesives and are easy to handle. Phase sepn. is not a problem. Also the surfactants can be used for water-based as well as solvent-based adhesives in addn. to use in hot melt adhesives.

Dwg.0/7

Derwent Class: A13; A25; A81; G03

International Patent Class (Main): C08K-005/06

International Patent Class (Additional): C08L-009/06

11/7,K/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009794551

WPI Acc No: 1994-074404/199409

Pressure sensitive adhesives for label mfr. - comprising immiscible styrene-butadiene and styrene-isoprene elastomers contg. a polyisoprene miscible tackifier

Patent Assignee: AVERY DENNISON CORP (AVER)

Inventor: ERCILLO J; SASAKI Y

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5290842	A	19940301	US 91755585	A	19910903	199409 B
			US 92921444	A	19920727	

Priority Applications (No Type Date): US 91755585 A 19910903; US 92921444 A 19920727

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5290842	A	16	C09J-011/08	Cont of application	US 91755585

Abstract (Basic): US 5290842 A

A pressure-sensitive adhesive comprises: (a) a styrene-butadiene (SB) or styrene-butadiene-styrene (SBS) block copolymer elastomer; (b) a second block copolymer elastomer of styrene-isoprene-styrene, styrene-isoprene, multi-armed styrene-isoprene or a mixt., which is immiscible with (a) and has a higher glass transition temp. (Tg) and **tangent delta value**; (a) and (b) are used in a ratio of 0.5-5:1 and a dynamic mechanical spectrum plot of tangent delta against temp. shows a first Tg attributable to polybutadiene at a peak temp. separate from and lower than a second Tg attributable to polyisoprene; (c) a normally solid tackifier with a softening pt. of 95 deg. C , obtained by polymerisation of a stream of 5-6C aliphatic dienes and monoolefins derived from petroleum and which is pref. miscible with the polyisoprene blocks in (b) and present in an amt. sufficient to increase the polyisoprene Tg, increase the temp. difference the polybutadiene Tg and the polyisoprene Tg, and increase the **tangent delta value** of the polyisoprene peak; and (d) a second, rosin (ester) or polyterpene tackifier. The tackifiers provide 50-70 wt.% of the total compsn..

(c) may further comprise a normally liq. tackifying resin made from the same petroleum derivs. Pref. the wt. ratio of (a):(b) = 1-1.5:1, esp. 1.3:1.

USE/ADVANTAGE - The adhesive is used in the mfr. of self-adhesive labels. The adhesive has excellent convertibility, i.e. it is cut cleanly by a die or blade and the matrix is stripped cleanly in a label-making process, and it has excellent adhesive properties and

ambient and low temp..

Dwg.0/14

Derwent Class: A12; A81; G03

International Patent Class (Main): C09J-011/08

International Patent Class (Additional): C09J-153/02

11/7,K/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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007609949

WPI Acc No: 1988-243881/198835

Dimensionally recoverable damping article - comprises damping component and hold-out component

Patent Assignee: RAYCHEM CORP (RAYC)

Inventor: KREVOR D H; MARTENS P

Number of Countries: 013 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 280404	A	19880831	EP 88300644	A	19880126	198835 B
US 4860851	A	19890829	US 877050	A	19870127	198944
EP 280404	B	19910102				199102
DE 3861329	G	19910207				199107
CA 1297420	C	19920317				199217

Priority Applications (No Type Date): US 877050 A 19870127

Cited Patents: GB 1155470; US 2027962; US 3597372; US 4121686

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 280404	A	E	15		
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Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE

US 4860851	A	9			
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EP 280404	B				
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Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE

Abstract (Basic): EP 280404 A

Providing acoustic damping of a substrate comprises (i) providing an article comprising a layer of a material that (a) is dimensionally-recoverable, having a recovery of at least 10%; and (b) exhibits viscoelastic damping, **having a tangent delta value greater than 0.5 (pref. at least 1.0) at a temp. between -10 and 300 deg. C**, and a frequency of 5-100,000 Hz; (ii) positioning the article adjacent to a surface of the substrate subject to acoustic vibration; and (iii) causing dimensional-recovery of said article to achieve acoustic coupling with the surface.

An article for acoustic damping of a substrate comprising (i) a damping first layer comprising a material that (a) alone exhibits viscoelastic damping, having a tangent delta of at least 0.2; and (ii) a constraining layer (pref. comprising a thermoplastic polymeric material) that is laminated to a substantial portion of a major surface of said first layer and that comprises a material that is dimensionally recoverable having a recovery of at least 10%; **the first and second layers together having a tangent delta value of at least 0.1** and being capable of exhibiting constrained layer damping when installed on the substrate. A multi-layer damping device comprises at least two of the above articles acoustically coupled together.

ADVANTAGE - A substrate can be damped by the simple and quick expedient of applying a damping material by dimensional-recovery. The damping article need not be precisely constructed to correspond to the

shape of the substrate. A single size of recoverable article may be suitable for recovery into engagement with a wide range of sizes of substrate. It includes its own delivery and installation system. The damping material may be much lighter than prior articles and may be easily removed

Abstract (Equivalent): EP 280404 B

Providing acoustic damping of a substrate comprises (i) providing an article comprising a layer of a material that (a) is dimensionally-recoverable, having a recovery of at least 10%; and (b) exhibits viscoelastic damping, having a **tangent delta value** greater than 0.5 (pref. at least 1.0) at a temp. between -10 and 300 deg. C, and a frequency of 5-100,000 Hz; (ii) positioning the article adjacent to a surface of the substrate subject to acoustic vibration; and (iii) causing dimensional-recovery of said article to achieve acoustic coupling with the surface.

An article for acoustic damping of a substrate comprising (i) a damping first layer comprising a material that (a) alone exhibits viscoelastic damping, having a tangent delta of at least 0.2; and (ii) a constraining layer (pref. comprising a thermoplastic polymeric material) that is laminated to a substantial portion of a major surface of said first layer and that comprises a material that is dimensionally recoverable having a recovery of at least 10%; the first and second layers together having a **tangent delta value** of at least 0.1 and being capable of exhibiting constrained layer damping when installed on the substrate. A multi-layer damping device comprises at least two of the above articles acoustically coupled together.

ADVANTAGE - A substrate can be damped by the simple and quick expedient of applying a damping material by dimensional-recovery. The damping article need not be precisely constructed to correspond to the shape of the substrate. A single size of recoverable article may be suitable for recovery into engagement with a wide range of sizes of substrate. It includes its own delivery and installation system. The damping material may be much lighter than prior articles and may be easily removed.

Dwg.0/6

Abstract (Equivalent): US 4860851 A

Article, for acoustic damping of a substrate, comprises (a) a damping first layer comprising a material that alone exhibits viscoelastic damping, having a **tangent delta value** of at least 0-2 at a temp. between -10 and 300 deg. C., and at a frequency between 5 and 100,000 Hz.; and (b) a constraining layer that is laminated to a substantial portion of a major surface of (a), and that comprises a material that is dimensionally recoverable, having a recovery of at least 10%. Layers (a) and (b), together, have a **tangent delta value** of at least 0.1 at a temp. between -10 and 300 deg. C., and at a frequency between 5 and 100,000 Hz, and can exhibit constrained layer damping when installed on the substrate.

Pref. the article is in wrap-around sleeve form, or in the form of a hollow moulded part.

USE/ADVANTAGE - Article provides both significant damping and significant dimensional recoverability, the latter being used to aid or provide acoustic coupling of the damping article and the structure to be damped

Derwent Class: A93; P86; Q63; Q67

International Patent Class (Additional): B29C-061/00; F16F-015/00;
F16L-055/02; G10K-011/16

14/26, TI/1 (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
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013631001
WPI Acc No: 2001-115209/200113

Rubber composition for tire comprises natural or synthetic rubber,
silica, carbon and metal hydroxide of specific particle size

14/26, TI/2 (Item 2 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
010194047
WPI Acc No: 1995-095301/199513

Solid electrolytic capacitor prodn with high capacity - by forming anodic
oxidn layer on surface of porous electrode body, impregnating with
ruthenium nitrate aq soln contg surfactant, etc

14/26, TI/3 (Item 3 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
010194046
WPI Acc No: 1995-095300/199513

Solid electrolytic capacitor prodn with high capacity - by forming anodic
oxidn layer on surface of porous electrode body, impregnating with
magnesium nitrate soln contg surfactant, etc

File 348:EUROPEAN PATENTS 1978-2003/Aug W03
File 349:PCT FULLTEXT 1979-2002/UB=20030821,UT=20030814

Set	Items	Description
S1	40	TANGENT()DELTA()VALU?
S2	81833	PERMEAB?
S3	601035	LIQUID? ? OR FLUID? ?
S4	581490	TEMPERATURE
S5	1134823	CELSIUS OR C
S6	651276	FAHRENHEIT OR F
S7	5055	IC=A61F-013/15
S8	121764	PORE? ? OR POROUS
S9	23	S1(S)S4
S10	26	S1(S)S5
S11	6	S1(S)S6
S12	0	S1 AND S7
S13	34	S9:S11
S14	4	S13 AND (S2 OR S8)
S15	33108	IC=A61F
S16	0	(S13 AND S15) NOT S14
S17	30	S13 NOT S14

14/3,AB,K/2 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
01025472

ELASTOMERIC COMPOSITIONS
COMPOSITIONS ELASTOMERES

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Box 2149, Baytown, TX 77522-2149, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200354032 A1 20030703 (WO 0354032)

Application: WO 2002US39363 20021209 (PCT/WO US0239363)

Priority Application: US 2001339966 20011210; US 2002381326 20020517

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 17428

English Abstract

The present invention includes compositions suitable for air barriers

such as innerliners where adhesion to tire carcass materials (e.g., SBR) and flexibility are desirable, as well as low air **permeability**. The invention includes a tire innerliner made by combining a filler; a sulfur cure system; optionally at least one secondary rubber; and at least one halogenated terpolymer of C^{sub}4 to C^{sub}8 isooolefin derived units, C^{sub}4 to C^{sub}14 multiolefin derived units, and p-alkylstyrene derived units. Examples of suitable fillers include modified carbon black, carbon black, silica, exfoliated clays, and combinations thereof. The present invention also includes a method of producing an elastomeric terpolymer composition comprising combining in a diluent C^{sub}4 to C^{sub}8 isooolefin monomers, C^{sub}4 to C^{sub}14 multiolefin monomers, and p-alkylstyrene monomers in the presence of a Lewis acid and at least one initiator to produce the terpolymer. Examples of suitable initiators include cumyl compounds and or halogenated organic compounds, especially secondary or tertiary halogenated compounds such as, for example, t-butylchloride, 2-acetyl-phenylpropane (cumyl acetate), 2-methoxy-2-phenyl propane (cumylmethyl-ether), 1,4-di(2-methoxy-2-propyl)benzene(di(cumylmethyl ether)); the cumyl halides, particularly the chlorides, such as, for example 2-chloro-2-phenylpropane, cumyl chloride (1-chloro-1-methylethyl)benzene), 1,4-di(2-chloro-2-propyl)benzene (di(cumylchloride)), and 1,3,5-tri(2-chloro-2propyl)benzene (tri(cumylchloride)); the aliphatic halides, particularly the chlorides, such as, for example, 2-chloro-2,4,4-trimethylpentane (TMPCI), and 2-bromo-2,4,4-trimethylpentane (TMPBr).

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... brominated isobutylene-co-p-methylstyrene (BIMS) as the innerliner polymer serves to provide for decreased **permeability** to air compared to general purpose elastomers (such as NR, BR, or SBR) or their...Test Methods

I 0 Cure properties were measured using a MDR 2000 at the indicated **temperature** and 0.5 degree arc. Test specimens were cured at the indicated **temperature**, typically from 150' C to 160' C, for a time (in minutes) corresponding to T90 + appropriate mold lag. When possible, standard ASTM ...1 5 strength, elongation at break, modulus values, energy to break) were measured at room **temperature** using an Instron 4202 or Instron 4204. Shore A hardness was measured at room **temperature** by using a Zwick Duromatic. Abrasion loss was determined at room **temperature** by weight difference by using an APH-40 Abrasion Tester with rotating sample holder (5The weight losses can be measured with an error of 1 5

Temperature -dependent (-80' C to 600C) dynamic properties (G*, G', G" and tangent delta) were obtained using a Rheometrics...

...temperaturedependent tangent delta curve (such as generated in, e.g., Figure 1) maximizes at a **temperature** affording information used to predict tire performance. The **tangent delta values** are measured with an error of 1 5 %, while the **temperature** is measured with an error of 1 2 ' C. Values of G" or tangent ...resonances with those of the methylene proton resonances and resonances specific for the PMS. Oxygen **permeability** was measured using a MOCON ...the inside chamber is conveyed to a sensor which measures the oxygen diffusion rate. Air **permeability** was tested by the following method. Thin, vulcanized test specimens from the sample compositions were...

...required for air to permeate through a given specimen is recorded to determine its air **permeability**. Test specimens were circular plates with 12 cm diameter and 0 mm. thickness. The error (20) in measuring air **permeability** is 1 0. ...the BIMS Compound 6.

Dynamic property testing shows that the BrIBIMS terpolymer Compound has higher **tangent delta values** at temperatures between +30' C and -20T

indicating potential improved dry, wet and winter traction properties, see Figure 1.

This...tires, passenger automobile tires, motorcycle tires, off the road tires, and the like. The oxygen **permeability** (MOCON) of the cured compositions of the invention is less than 10

8 3 2...cm cm/cm sec-atm at 65'C in yet another embodiment; and the oxygen

permeability may range from 0.1×10^{-8} to 10×10^{-8} CM³.Cm...65 in yet another embodiment. Compositions of the terpolymer would be expected, based on the **tangent delta values** at 60' C, to have a similar heat buildup relative to the other components of, for example, a...

Claim

... than 0.60 at -300C.

18 The cured elastomeric composition of Claim 15, having a **tangent delta value** of greater than 0.20 at 0 ' C . I 0 19. The cured ...45 units.

40 The elastomeric composition of Claim 23, wherein the cured composition has a **tangent delta value** of greater than 0.60 at -30' C .

41 The elastomeric composition of Claim 23, wherein the cured composition has a tangent delta...greater than 0.60 at -300C.

67 The elastomeric composition of Claim 47, having a **tangent delta value** of from greater than 0.25 at 0 ' C ...

17/6/1 (Item 1 from file: 348)

01243700

Tire tread which contains resins with spatially-defined softening points

17/6/4 (Item 4 from file: 348)

01017958

Pressure-sensitive adhesives based on preferentially tackified immiscible elastomers

17/6/5 (Item 5 from file: 348)

01006341

Tire with chafer composition

17/6/7 (Item 7 from file: 348)

00820700

TIRE TREAD COMPOSITION

17/6/10 (Item 10 from file: 348)

00581641

TIRE TREAD COMPOSITIONS

17/6/11 (Item 11 from file: 348)

00516372

Pneumatic safety tire.

17/6/12 (Item 12 from file: 348)

00503108

PRESSURE-SENSITIVE ADHESIVES BASED ON PREFERENTIALLY TACKIFIED IMMISCIBLE ELASTOMERS

17/6/15 (Item 15 from file: 348)

00252323

Method of preparing a rubber compound for a pneumatic tire tread cap and a tire having a tread cap of such a compound.

17/6/22 (Item 7 from file: 349)

00863064 **Image available**

ADHESIVE COMPOSITIONS AND CONSTRUCTIONS WITH IMPROVED CUTTING PERFORMANCE

17/6/26 (Item 11 from file: 349)

00390101

IMPROVED PRESSURE SENSITIVE LABELING ADHESIVE

17/6/27 (Item 12 from file: 349)

00353235

TIRE TREAD COMPOSITION

17/6/29 (Item 14 from file: 349)

00223495

TIRE TREAD COMPOSITIONS

17/6/30 (Item 15 from file: 349)

00196581

PRESSURE-SENSITIVE ADHESIVES BASED ON PREFERENTIALLY TACKIFIED IMMISCIBLE ELASTOMERS

17/3,AB/6 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00891236

Heterogeneous silica carbon black-filled rubber compound

Heterogene, mit Siliziumdioxid und Russ-gefullte Gummizusammensetzung

Compositions caoutchouteuses heterogenes chargees de silice et de noir de carbone

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 814113 A2 971229 (Basic)
EP 814113 A3 980506

APPLICATION (CC, No, Date): EP 97109652 970613;

PRIORITY (CC, No, Date): US 667564 960621

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: C08J-003/20

ABSTRACT EP 814113 A2

The present invention relates to a heterogeneous silica/carbon black-filled rubber compound and a process for making the same. The rubber compound is characterized by containing silica, two different carbon blacks and two different rubbers. One of the carbon blacks is selectively dispersed in one rubber along with the silica and the other carbon black is dispersed in another rubber. The two rubber compounds are then mixed to form a heterogeneous rubber compound.

ABSTRACT WORD COUNT: 73

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9712W3	610
SPEC A	(English)	9712W3	4737
Total word count - document A			5347
Total word count - document B			0
Total word count - documents A + B			5347

17/3,AB/8 (Item 8 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00665692

Diene polymers and copolymers terminated with compounds having multiple-bonded nitrogen atoms and partially crosslinked with polyfunctional reagents
Dienpolymere und -copolymere terminiert mit Verbindungen, die mehrfachgebundene Stickstoffatome enthalten, und teilweise vernetzt sind durch polyfunktionelle Re

Polymeres et copolymeres de dienes termines par des composés ayant des liaisons multiples azotées et réticulées partiellement par des réactifs polyfonctionnels

PATENT ASSIGNEE:

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Kraus, Walter, Dr. et al (7061), Patentanwälte Kraus, Weisert & Partner
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PATENT (CC, No, Kind, Date): EP 639587 A1 950222 (Basic)
EP 639587 B1 971022

APPLICATION (CC, No, Date): EP 94112298 940805;

PRIORITY (CC, No, Date): US 106729 930816

DESIGNATED STATES: DE; ES; FR; GB; IT

INTERNATIONAL PATENT CLASS: C08C-019/44;

ABSTRACT EP 639587 A1

Diene polymers or copolymers having improved raw polymer viscosity and reduced hysteresis in the cured and carbon black reinforced state are provided. These diene polymers or copolymers are prepared by a method which involves first terminating substantially all of the living diene polymer or copolymer chains obtained by anionic polymerization with a compound having multiple-bonded nitrogen atoms selected from the group consisting of aromatic nitriles and substituted imines having the formula (see image in original document) and then coupling a portion of the resultant terminated polymer chains

with a polyfunctional reagent selected from the groups consisting of silicon polyhalides, polyisocyanates, phosphoryl halides and polycarboxylic acid halides.

ABSTRACT WORD COUNT: 108

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9710W3	399
CLAIMS B	(German)	9710W3	374
CLAIMS B	(French)	9710W3	460
SPEC B	(English)	9710W3	5506
Total word count - document A			0
Total word count - document B			6739
Total word count - documents A + B			6739

17/3,AB/13 (Item 13 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00471820

Fire retardant epoxy resin compositions

Feuerhemmende Epoxidharzzusammensetzungen

Compositions de resine epoxy ignifugees

PATENT ASSIGNEE:

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Diehl, Hermann O. Th., Dr. (2995), Diehl, Glaeser, Hiltl & Partner
Patentanwalte Postfach 19 03 65, 80603 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 490065 A2 920617 (Basic)
EP 490065 A3 921125
EP 490065 B1 980506

APPLICATION (CC, No, Date): EP 91117902 911021;

PRIORITY (CC, No, Date): US 626508 901212

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: C08L-063/00; C08K-005/53;

ABSTRACT EP 490065 A2

Thermosetting epoxy resin compositions having improved flame retardancy having combined therewith an effective amount of a dihydroxymethyl phosphine oxide having the general formula (see image in original document) wherein R represents an alkyl group having from 1 to about 8 carbon atoms or -R'OH where R' represents an alkylene group having from 2 to about 8 carbon atoms, are disclosed.

ABSTRACT WORD COUNT: 62

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9819	463
CLAIMS B	(German)	9819	379
CLAIMS B	(French)	9819	487
SPEC B	(English)	9819	2428
Total word count - document A			0
Total word count - document B			3757

Total word count - documents A + B 3757

17/3,AB/16 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01021363

ELASTOMERIC COMPOSITIONS

COMPOSITIONS ELASTOMERES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200350171 A2 20030619 (WO 0350171)

Application: WO 2002US39433 20021209 (PCT/WO US0239433)

Priority Application: US 2001339966 20011210

Parent Application/Grant:

Related by Continuation to: US 2001339966 20011210 (CON)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 14848

English Abstract

The present invention includes compositions suitable for tire treads or sidewalls and other articles where abrasion resistance and flexibility are desirable. The invention includes a tire tread or sidewall made by combining a filler; a sulfur cure system; optionally at least one secondary rubber; and at least one halogenated terpolymer of C^{sub}4 to C^{sub}8 isoolefin derived units, C^{sub}4 to C^{sub}14 multiolefin derived units, and p-alkylstyrene derived units. Examples of suitable fillers include carbon black, silica, and combinations thereof. The present invention also includes a method of producing an elastomeric terpolymer composition comprising combining in a diluent C^{sub}4 to C^{sub}8 isoolefin monomers, C^{sub}4 to C^{sub}14 multiolefin monomers, and p-alkylstyrene monomers in the presence of a Lewis acid and at least one initiator to produce the terpolymer. Examples of suitable initiators include cumyl compounds and or halogenated organic compounds, especially secondary or tertiary halogenated compounds such as, for example, t-butylchloride, 2-acetyl-2-phenylpropane (cumyl acetate), 2-methoxy-2-phenyl propane (cumylmethyl-ether), 1,4-di(2-methoxy-2-propyl)benzene (di(cumylmethyl ether)); the cumyl

halides, particularly the chlorides, such as, for example 2-chloro-2-phenylpropane, cumyl chloride (1-chloro-1-methylethyl)benzene), 1,4-di(2-chloro-2-propyl)benzene (di(cumylchloride)), and 1,3,5-tri(2-chloro-2-propyl)benzene (tri(cumylchloride)); the aliphatic halides, particularly the chlorides, such as, for example, 2-chloro-2,4,4-trimethylpentane (TMPCI), and 2-bromo-2,4,4-trimethylpentane (TMPBr).

17/3,AB/17 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00992200

**RUBBER COMPOSITIONS AND METHOD FOR INCREASING THE MOONEY SCORCH VALUE
COMPOSITIONS DE CAOUTCHOUC ET PROCEDE PERMETTANT D'AUGMENTER LA VALEUR DE
GRILLAGE MOONEY**

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200320813 A1 20030313 (WO 0320813)

Application: WO 2002US27045 20020823 (PCT/WO US0227045)

Priority Application: US 2001945606 20010904

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO

RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 7599

English Abstract

A rubber composition is disclosed wherein the rubber composition contains at least (a) a rubber component; (b) a silica filler; (c) coupling agent; (d) a cure-enhancing amount of at least one polyalkylene oxide; and (e) at least one high molecular weight thiuram disulfide. The compositions may also include suitable amounts of other ingredients such as carbon black, antiozonants, antioxidants, etc.

17/3,AB/18 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00992199

**RUBBER COMPOSITIONS AND METHOD FOR DECREASING THE TANGENT DELTA VALUE
COMPOSITIONS DE CAOUTCHOUC ET PROCEDE DE DIMINUTION DE LA VALEUR TANGENTE
DELTA**

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Patent and Priority Information (Country, Number, Date):
Patent: WO 200320812 A1 20030313 (WO 0320812)
Application: WO 2002US26917 20020823 (PCT/WO US0226917)
Priority Application: US 2001945598 20010904
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO
RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 6945
English Abstract

A rubber composition is disclosed wherein the rubber composition contains
at least (a) a rubber component; (b) a silica filler; (c) a coupling
agent; and (d) a cure-enhancing amount of at least one polyalkylene oxide
having a weight average molecular weight less than 200. The compositions
may also include suitable amounts of other ingredients such as carbon
black, antiozonants, antioxidants, etc.

17/3,AB/19 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT
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00942302

**HIGH TRACTION AND WEAR RESISTANT ELASTOMERIC COMPOSITIONS
COMPOSITIONS ELASTOMERES HAUTEMENT RESISTANTES A LA TRACTION ET A L'USURE**

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200274850 A1 20020926 (WO 0274850)
Application: WO 2002US3230 20020201 (PCT/WO US0203230)
Priority Application: US 2001277124 20010319

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6898

English Abstract

The present invention is an elastomeric composition having a primary rubber component, and an elastomeric component. More particularly, in one embodiment the elastomeric composition has from 50 to 95 phr natural rubber as the primary rubber component, from 5 to 40 phr of a copolymer of a C "sub"4 to C "sub"7 isoolefin and a para-alkylstyrene as the elastomeric component, and from 0 to 40 phr of polybutadiene as a secondary rubber component. In one embodiment, the copolymer includes a terpolymer of isobutylene, para-methylstyrene and para-bromomethylstyrene, wherein the parabromomethylstyrene is present from 0.2 mol % to 3.0 mol %. Further, the composition desirably contains carbon black. The compositions are useful for tire treads and tire sidewalls having improved winter wear properties such as high DIN abrasion values and improved **Tangent Delta values**. The compositions are also useful in any application where high damping and high abrasion resistance is desirable, such as in hoses, belts antivibrational mounts and shoe soles.

17/3,AB/20 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00900137

COLORABLE ELASTOMERIC COMPOSITION

COMPOSITION ELASTOMERE COLORABLE

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200232995 A1 20020425 (WO 0232995)

Application: WO 2001US32232 20011016 (PCT/WO US0132232)

Priority Application: US 2000691764 20001018

Parent Application/Grant:

Related by Continuation to: US 2000691764 20001018 (CIP)

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK

DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 12928

English Abstract

Transparent and colorable elastomeric compositions are provided. The transparent elastomeric compositions can be covulcanized with rubbers such as polybutadiene, polyisoprene, styrene-butadiene rubber, styrene-isoprene-butadiene rubber, isoprene-butadiene rubber, or natural rubber and polybutene processing oil. The colorable rubber compositions have sufficient properties to function as a reinforcing member in a shoe sole or automobile tire. Preferably, both the transparent and colorable elastomeric compositions include at least one copolymer of a C^{sub}4 to C^{sub}7 isoolefin and ap-methylstyrene, silica and a high cispolybutadiene rubber.

17/3,AB/21 (Item 6 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00864205

TRANSPARENT AND COLORABLE ELASTOMERIC COMPOSITIONS

COMPOSITIONS D'ELASTOMERES TRANSPARENTES ET COLORABLES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200196462 A2-A3 20011220 (WO 0196462)

Application: WO 2001US14614 20010507 (PCT/WO US0114614)

Priority Application: US 2000592757 20000613

Designated States: AU BR CA CN CZ HU IN JP KR MX PL RU

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Publication Language: English

Filing Language: English

Fulltext Word Count: 5427

English Abstract

Transparent and colorable elastomeric compositions are provided. The transparent elastomeric compositions can be covulcanized with rubbers such as polybutadiene, polyisoprene, styrene-butadiene rubber, styrene-isoprene-butadiene rubber, isoprene-butadiene rubber, ethylene-propylene diene rubber or natural rubber. The colorable rubber compositions have sufficient properties to function as a reinforcing member in an automobile tire. Preferably, both the transparent and colorable elastomeric compositions include at least one copolymer of a

C"sub"4 to C"sub"7 isoolefin and a para-alkylstyrene, silica and a coupling agent.

17/3,AB/23 (Item 8 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00802375

TACK FREE SURFACE CURES OF POLYMERS BY ORGANIC PEROXIDES IN THE PRESENCE OF AIR

DURCISSEMENT DE SURFACES NON COLLANTES DE POLYMERES AU MOYEN DE PEROXYDES ORGANIQUES ET EN PRESENCE D'AIR

Patent Applicant/Assignee:

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except: US)

Patent Applicant/Inventor:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200134680 A1 20010517 (WO 0134680)

Application: WO 2000US30953 20001109 (PCT/WO US0030953)

Priority Application: US 99164488 19991109

Designated States: AU BR CA CN HU JP MX PL RU SG US

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Publication Language: English

Filing Language: English

Fulltext Word Count: 20350

English Abstract

Compositions are disclosed which comprise mixtures of at least one compound selected from silicone elastomers, bis-, tri- or higher polymaleimides and/or bis-, tri- or higher polycitraconimides, and at least one compound selected from p-phenylene-diamine based antiozonants, sulfur compounds capable of accelerating sulfur vulcanization of polymers capable of being crosslinked by sulfur and polysulfide polymers which when compounded into polymers curable by free radical initiators in the presence of free radical initiators permit substantially tack free surface cure of the polymers by decomposition of the free radical initiator in the presence of molecular oxygen. Compositions containing the above ingredients and at least one free radical initiator, curable compositions containing the combination and processes for making and using the compositions are also disclosed.

17/3,AB/24 (Item 9 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00553912

MULTILAYER PSA CONSTRUCTION EXHIBITING REDUCED TACKIFIER MIGRATION

STRUCTURE MULTICOUCHE D'ADHESIF SENSIBLE A LA PRESSION PRESENTANT UNE MIGRATION REDUITE DES AGENTS COLLANTS

Patent Applicant/Assignee:

AVERY DENNISON CORPORATION,
KO Chan U,
CHUANG Hsiao K,
UGOLICK Ronald,

Inventor(s):

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CHUANG Hsiao K,
UGOLICK Ronald,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200017285 A1 20000330 (WO 0017285)
Application: WO 99US22101 19990923 (PCT/WO US9922101)
Priority Application: US 98158990 19980923

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ
BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 12132

English Abstract

A multilayer PSA construction includes a facestock, a hazy, first adhesive layer adjacent the facestock, and a PSA layer adjacent the first adhesive layer, and is protected until use by a release liner. The first adhesive layer includes an immiscible blend of a first elastomer having a first glass transition temperature and forming a continuous phase, and a second elastomer forming a discontinuous phase. The second elastomer has a glass transition temperature greater than the first glass transition temperature. The first adhesive layer also contains a tackifying component, which is preferentially soluble in the discontinuous phase. The PSA layer has a composition different from the first adhesive layer and is formed of at least one tackified elastomer that provides a measurable third maximum glass transition temperature, which is less than the second glass transition temperature. The multilayer PSA construction exhibits reduced migration of tackifiers and plasticizers over time.

17/3,AB/25 (Item 10 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00499826

**TRANSPARENT AND COLORABLE ELASTOMERIC COMPOSITIONS
COMPOSITIONS ELASTOMERES TRANSPARENTES ET COLORABLES**

Patent Applicant/Assignee:

EXXON CHEMICAL PATENTS INC,

Inventor(s):

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POULTER Robert R,
MCEL RATH Kenneth,
ROGERS John,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9931178 A1 19990624
Application: WO 98US26716 19981215 (PCT/WO US9826716)
Priority Application: US 9769599 19971215

Designated States: BR CA CN CZ HU JP KR MX PL AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English
Fulltext Word Count: 5707
English Abstract

Transparent and colorable elastomeric compositions are provided. The transparent elastomeric compositions can be covulcanized with rubbers such as polybutadiene, polyisoprene, styrene-butadiene rubber, styrene-isoprene-butadiene rubber, isoprene-butadiene rubber, ethylene-propylene diene rubber or natural rubber. The colorable rubber compositions have sufficient properties to function as a reinforcing member in an automobile tire. Preferably, both the transparent and colorable elastomeric compositions include at least one copolymer of a C4 to C7 isolefin and a para-alkylstyrene, silica and a coupling agent.

17/3,AB/28 (Item 13 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00265553

POLYURETHANES CURED WITH 4,4'-METHYLENE-BIS-(3-CHLORO-2,6-DIETHYLANILINE)
POLYURETHANES DURCIS PAR 4,4'-METHYLENE-BIS-(3-CHLORO-2,6-DIETHYLANILINE)

Patent Applicant/Assignee:

UNIROYAL CHEMICAL COMPANY INC,

Inventor(s):

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SINGH Ajaib,
FUEST Ronald W,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9413722 A1 19940623

Application: WO 93US11233 19931117 (PCT/WO US9311233)

Priority Application: US 92501 19921207

Designated States: AU BB BG BR CA CZ FI HU JP KP KR KZ LK MG MN MW NO NZ PL
RO RU SD SK UA AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 8116

English Abstract

Polyurethane prepolymers are disclosed prepared with mononuclear aromatic diisocyanate such as toluene diisocyanate and an aliphatic diisocyanate such as H12MDI. These prepolymers can be cured with 4,4'-methylene-bis-(3-chloro-2,6-diethylaniline) to form a cured urethane elastomer with reduced propensity to crack during the curing process, extended pour life (a slower rate of viscosity buildup after curative and prepolymer are mixed), low hysteresis, and a low level of free toluene diisocyanates and/or other toxic or volatile substances to increase worker safety during processing. It has also been found that prepolymers made from toluene diisocyanate and cured with a blend of two aromatic diamine curatives yield urethane elastomers with the same reduced propensity to crack during the curing process.

(FILE 'HOME' ENTERED AT 12:44:48 ON 28 AUG 2003)
FILE 'HCAPLUS' ENTERED AT 12:44:56 ON 28 AUG 2003

L1 1 S TANGENT DELTA VALUE
L2 5 S TANGENT DELTA VALUE?

L2 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:668683 HCAPLUS
TI **Evaluation of isobutylene-based elastomers in a model winter tire tread**

L2 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:400564 HCAPLUS
TI **Correlations between tack and viscoelastic properties of model tire belt skims**

L2 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:736323 HCAPLUS
DN 137:264248
TI **High-traction and wear-resistant elastomeric compositions**

L2 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:317537 HCAPLUS
DN 135:78099
TI **Improved tread compound wet/winter traction using brominated isobutylene-co-para-methylstyrene**

L2 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:202713 HCAPLUS
DN 138:222861
TI **Rubber compositions containing polyalkylene oxides and method for decreasing ***tangent*** ***delta*** ***value*** of the rubber compositions**

IN Hong, Sung Whee; Hannon, Martin J.; Greene, Peter K.
PA Uniroyal Chemical Company, Inc., USA
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DT Patent
LA English
IC ICM C08K005-06
ICS C08K005-548

CC 39-13 (Synthetic Elastomers and Natural Rubber)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2003020812	A1	20030313	WO 2002-US26917	20020823
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003119960	A1	20030626	US 2001-945598	20010904

PRAI US 2001-945598 A 20010904

OS MARPAT 138:222861

AB The rubber compn., useful for tire treads, comprises (a) a rubber component; (b) a silica filler; (c) a coupling agent; and (d) a cure-enhancing amt. of .gtoreq.1 polyalkylene oxide having wt. av. mol. wt. >200. The compn. also includes suitable amts. of other ingredients such as carbon black, antiozonants, antioxidants, etc. Thus, a rubber compn. comprising styrene-butadiene rubber 75.00, butadiene rubber 25.00, carbon black (N 234) 5.00, silica (Zeosil 1165) 85.00, arom. oil 44.00, antioxidant 32.50, stearic acid 1.00, p-phenylenediamine (Flexzone 7P) 1.00, hydrocarbon wax blend 0.50, Silquest A 1289 (tetrasulfide silane) 6.00 and diethylene glycol 3.00 parts was molded and cured, showing curing time (160.degree.) 14.0 min, Mooney viscosity (ML4 at 100.degree.) 84.4 and low ***tangent*** ***delta*** ***value*** .

ST rubber compn silica polyalkylene oxide silane coupling agent;
tangent ***delta*** ***value*** decreasing rubber tire

IT Synthetic rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(butadiene-isoprene-styrene; rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Synthetic rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(chloroisobutylene-isoprene; rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Synthetic rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(chloroprene-styrene, rubber; rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Isoprene rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(of cis-1,4-configuration; rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Coupling agents

(rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(rubber compns. contg. polyalkylene oxides with decreased ***tangent*** ***delta*** ***value*** compns. for tire treads)

IT Butadiene rubber, uses

EPDM rubber

Isoprene-styrene rubber

Natural rubber, uses

Neoprene rubber, uses

Nitrile rubber, uses

Rubber, uses

Styrene-butadiene rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (rubber compns. contg. polyalkylene oxides with decreased
 tangent ***delta*** ***value*** compns. for tire
 treads)

IT Polymer blends
 RL: TEM (Technical or engineered material use); USES (Uses)
 (rubber compns. contg. polyalkylene oxides with decreased
 tangent ***delta*** ***value*** compns. for tire
 treads)

IT Tires
 (treads; rubber compns. contg. polyalkylene oxides with decreased
 tangent ***delta*** ***value*** compns. for tire
 treads)

IT 9003-17-2
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (butadiene rubber, rubber compns. contg. polyalkylene oxides with
 decreased ***tangent*** ***delta*** ***value*** compns. for
 tire treads)

IT 40372-72-3, Silquest A 1289
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agent; rubber compns. contg. polyalkylene oxides with
 decreased ***tangent*** ***delta*** ***value*** compns. for
 tire treads)

IT 7631-86-9, Zeosil 1165, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (filler; rubber compns. contg. polyalkylene oxides with decreased
 tangent ***delta*** ***value*** compns. for tire
 treads)

IT 9003-31-0
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (isoprene rubber, of cis-1,4-configuration; rubber compns. contg.
 polyalkylene oxides with decreased ***tangent*** ***delta***
 value compns. for tire treads)

IT 25038-32-8
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (isoprene-styrene rubber, rubber compns. contg. polyalkylene oxides
 with decreased ***tangent*** ***delta*** ***value***
 compns. for tire treads)

IT 9010-98-4
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (neoprene rubber, rubber compns. contg. polyalkylene oxides with
 decreased ***tangent*** ***delta*** ***value*** compns. for
 tire treads)

IT 9003-18-3
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (nitrile rubber, rubber compns. contg. polyalkylene oxides with
 decreased ***tangent*** ***delta*** ***value*** compns. for
 tire treads)

IT 111-46-6, Diethylene glycol, uses 112-27-6, Triethylene glycol
 504-63-2, Trimethylene glycol 4407-89-0, Dimethylene glycol
 12627-13-3D, Silicate, salts 24800-44-0, Tripropylene glycol

25265-71-8, Dipropylene glycol

RL: MOA (Modifier or additive use); USES (Uses)

(rubber compns. contg. polyalkylene oxides with decreased
tangent ***delta*** ***value*** compns. for tire
treads)

IT 60676-86-0, Fused silica

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(rubber compns. contg. polyalkylene oxides with decreased
tangent ***delta*** ***value*** compns. for tire
treads)

IT 26602-62-0, Butadiene-isoprene-styrene copolymer 26833-56-7,
Chloroprene-styrene copolymer 90386-37-1, Chloroisobutylene-isoprene
copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(rubber; rubber compns. contg. polyalkylene oxides with decreased
tangent ***delta*** ***value*** compns. for tire
treads)

IT 9003-55-8

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(styrene-butadiene rubber, rubber compns. contg. polyalkylene oxides
with decreased ***tangent*** ***delta*** ***value***
compns. for tire treads)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Nippon Zeon Co; EP 0698639 A 1996 HCAPLUS
- (2) Yokohama Rubber Co Ltd; EP 0761748 A 1997 HCAPLUS
- (3) Yokohama Rubber Co Ltd; EP 0890598 A 1999 HCAPLUS

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